

In re Appln. of WUNNING et al.
Application No.

CLAIM AMENDMENTS

Claims 1-14 (Cancelled)

15. (New) A combustion chamber for a gas turbine comprising:
a wall enclosing an internal space for serving as a reaction space;
an inlet leading into the internal space that is supplied with fresh air;
an outlet emerging from the internal space for discharging hot exhaust gases;
the inlet and the outlet being aligned and the internal space configured such that a relatively large circulating gas stream flow is formed in the internal space so as to maintain a flameless oxidation process; and
a fuel feed device arranged to guide fuel into the internal space in a predetermined direction, the fuel feed device and the inlet having essentially the same orientation.

16. (New) The combustion chamber according to claim 15, wherein the cross sectional configurations of the inlet and outlet the geometry of the internal space are designed such that the gas stream circulating in the internal space has a mass flow rate is less than twice a mass flow rate of the fresh air introduced into the inlet.

17. (New) The combustion chamber according to claim 15, wherein the cross sectional configurations of the inlet and outlet the geometry of the internal space are designed such that the gas stream circulating in the internal space has a mass flow rate is larger than twice a mass flow rate of the fresh air introduced into the inlet.

18. (New) The combustion chamber according to claim 15, wherein the inlet includes a plurality of air nozzles arranged next to each other in a row.

19. (New) The combustion chamber according to claim 18, wherein each air nozzle has a portion extending beyond the wall.

20. (New) The combustion chamber according to claim 18, wherein the air nozzles have a corresponding orientation.

21. (New) The combustion chamber according to claim 18, wherein the combustion chamber has a cylindrical configuration and the air nozzles are arranged on a circle that is arranged concentric to combustion chamber.

22. (New) The combustion chamber according to claim 15, wherein the combustion chamber is designed as a circular ring.

23. (New) The combustion chamber according to claim 15, wherein the inlet and the outlet are arranged and the geometry of the internal space is configured such that the circulating gas stream flow encompasses the entire internal space.

24. (New) The combustion chamber according to claim 15, wherein the circulating gas stream flow has only a single turbulence center.

25. (New) The combustion chamber according to claim 24, wherein the turbulence center lies on a curved surface.

26. (New) The combustion chamber according to claim 15, wherein the combustion chamber includes a preheating device.

27. (New) The combustion chamber according to claim 15, wherein a guide device is arranged in the internal space that divides the internal space into a mixing and reaction channel and a backflow channel.

28. (New) A gas turbine comprising:
a compressor;
a turbine; and
a combustion chamber for flameless oxidation of fuel, the combustion chamber enclosing an internal space and having an inlet connected to the compressor, an outlet that is connected to the turbine and a fuel feed device, the inlet defining an air inlet direction and the fuel feed device defining a fuel introduction direction;
wherein the fuel introduction direction and the air inlet direction are in substantially the same direction.